

SYNONYMY AND VARIATION OF SOME SPECIES OF THE ANT GENUS *ANOCHETUS*

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INTRODUCTION

The genus *Anochetus* Mayr contains about a hundred or slightly more nominate species and infraspecies distributed widely in the tropics and subtropics of the world. In general, *Anochetus* species are smaller-sized counterparts of those in the genus *Odontomachus* Latreille, and it has become increasingly difficult to maintain these two groupings as separate genera. In fact, this separation may well prove impossible as the study of the world representatives progresses. As in many another group of ants badly needing revision at the genus level, *Anochetus* has its encumbering underbrush of synonymy at the species level. A recent (1963) study trip through the relevant European museums has enabled me to make comparisons among the collections of Frederick Smith, Ernest André, Carlo Emery, Gustav Mayr, Felix Santschi and Auguste Forel. The comparisons were made with the aid of digms, in-

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cluding types of Wheeler, Weber, Bernard and other more recent specialists, mainly specimens from the Museum of Comparative Zoology at Harvard University. Only some of the most obvious cases of synonymy are dealt with here; quite a few more synonyms require further study before they can be published.

ANOCHETUS PRINCEPS and A. RUGOSUS

These two species, with *A. risi* Forel, form an Indomalayan group.

Anochetus princeps

Anochetus princeps Emery, 1884, Ann. Mus. Civ. Stor. Nat. Genova, (2a) 1:379, worker, in key; type locality "Giava," actually Tjibodas, Java, as cited by Emery, 1887, *ibid.*, (2a) 5:427, worker. Emery, 1889, *ibid.*, 27:499, worker, female, Thagatá, Tenasserim, Burma. Emery, 1901, *ibid.*, 40:671, record from Si Rambé, Sumatra.

Anochetus princeps var. *laeta* Forel, 1910, Ann. Soc. Ent. Belg., 54:27, worker; type locality "Sumatra." New synonymy, type examined.

Anochetus jacobsoni Forel, 1911, Notes Leyden Mus., 33:193, worker; type locality Goenoeng Oengaran, Java. New synonymy, types examined.

Anochetus jacobsoni var. *taipingensis* Forel, 1913, Zool. Jahrb. Syst., 36:18, worker, male; Maxwell's Hill, near Taiping, Malaya, 3500 feet. New synonymy, types examined.

Anochetus serratus Stitz, 1923, Sitzb. naturf. Freunde, Berlin, p. 113, worker; type locality Tjibodas, Java. New synonymy, type not seen.

This handsome large species was studied with the help of three digm specimens from Mt. Poi, Sarawak, Borneo (E. Mjöberg leg.), representing a considerable extension of the known range. The species shows modest geographical variation in a number of characters, so that standard taxonomists would probably retain several of the synonyms listed above as subspecific names, and might even add one or two additional racial names on the basis of the available material. Of course, we must make an arbitrary decision as to their unity within one species, because any one of these allopatric populations might really be a separate biological species. My decision is to treat them as representatives of a single species, and to designate them by the localities from which they came, a course which has the advantage of avoiding much taxonomic hocus-pocus with nomenclature and type designations in the case of possible "new" forms. This decided, we may describe the variation in brief with a minimum of distortion through racial schemes.

Body size. The total outstretched length is largest in the Sarawak workers and those from Si Rambé, Sumatra; these average a little more than 8 mm; the *princeps* type, from Java, is a trifle smaller, and the *jacobsoni* type size is similar to this. The specimen from Malaya (var. *taipingensis*) seems smaller, and the Tenasserim sample is smallest of all—about 7 mm.

Mandibles. The Sarawak sample has the narrowest mandibles; other samples have the mandibles more conspicuously widened apicad, though even these vary among themselves.

Shape of node. The Malayan specimen and the type of var. *laeta*, from Sumatra, have the petiolar nodes blunter apically than in the other samples, but the nodal shape varies somewhat even within nest series.

Sculpture of pronotum. Although all samples have the pronotal disc smooth and shining, only the Sarawak digm lacks at least feeble striation around the periphery of the disc. The Javanese samples have this weak, indefinite peripheral striation, but the lower pleura are largely smooth and shining; in Sumatran and Malayan workers, the striation comes farther down the pleura, while in Tenasserim, the pleura are entirely or nearly entirely occupied by loose striation.

Sculpture of mesonotum. The Sarawak sample has coarse rugae extending over the mesonotal surface, a condition weakly copied in the *jacobsoni* types from Goenoeng Oengaran, Java; the other samples all have the mesonotum smooth and shining, or at most vaguely roughened.

Color. The Sarawak and Si Rambé, Sumatra, samples are darker reddish-brown than the rest; the type of *laeta* is rather obviously callow.

Although I have not seen types of *A. serratus*, its brief description fits well the type *A. princeps*, and the type locality is the same.

Anochetus rugosus

Odontomachus rugosus Fr. Smith, 1857, Jour. Proc. Linn. Soc. London, 2:65, worker; type locality "Singapore."

Anochetus Beccarii Emery, 1884, Ann. Mus. Civ. Stor. Nat. Genova, (2a) 1:379 (in key), worker; type locality "Sumatra," actually Ajer Mantcior, Sumatra, according to Emery, 1887, *ibid.*, (2a) 5:427, worker. New synonymy, type not seen.

Anochetus jacobsoni Menozzi, 1939 (*nec* Forel, 1911), Tijds. v. Ent., 82:178, fig. 3, worker; type locality Anai Kloof, W. Coast Sumatra, 300 m. New synonymy, type not seen.

Comparison with the *rugosus* and *beccarii* types was made through a digm worker from the Tutu River, North Borneo (E. Mjöberg leg.), representing a great extension of the known range. The description of Menozzi's *jacobsoni* agrees in all essential particulars with the digm, and I have no doubt of this synonymy. *A. rugosus* does not show much geographic variation so far as the present samples are concerned.

FOUR SUMMARY SYNONYMIES

Anochetus cameroni Forel, 1915, Bull. Soc. Vand. Sci. Nat., 50:352, worker; type locality "C. S. Roque, Brasil (M. Cameron)" in error; the true type locality is probably San Roque, Spain, near Gibraltar. This is a junior synonym of *Anochetus ghilianii* (Spinola), the well-known species of southern Spain and Morocco. New synonymy. This synonymy of course allows us to cease considering the species as a member of the neotropical fauna.

Anochetus bierigi Santschi, 1931, Rev. Ent., Rio de Janeiro, 1:268, figs. 4-6, worker, female; type locality France Field, Panama, is a junior synonym of *Anochetus diegensis* Forel, 1912, Ann. Soc. Ent. Belg., 56:29, worker; type locality Don Diego, at foot of Sierra Nevada de Santa Marta, Colombia. New synonymy, types compared with digms from Barro Colorado Island, Panama Canal Zone.

Anochetus sudanicus Weber, 1942, Proc. Ent. Soc. Wash., 44:47, fig. 7, worker; type locality Longoforok, eastern base of Imatong Mts., Sudan, is a junior synonym of *Anochetus gracilicornis* Viehmeyer, 1923, Denkschr. Akad. Wiss. Wien, 98:87, fig. 1, worker: type locality Renk, Kordofan, Sudan. New synonymy.

The holotype of *A. sudanicus* compares well with a syntype of *A. gracilicornis*, except that the latter is a little darker in color (main body color yellowish-brown) and has the obsolescent striation on the sides of the pronotum a little more distinct and extensive. In both specimens the greater part of the pronotal disc is smooth and shining except for scattered small punctures.

Anochetus silvaticus Bernard, 1952, Mém. Inst. Fr. Afr. Noire, 19 (1): 212, worker, female; type locality Banco Forest, near Abidjan, Ivory Coast; cotype from Zouépo, Mt. Nimba Reserve, Guinea, is a junior synonym of *Anochetus traegaordhi* Mayr, 1903, Results Swed. Zool. Exped. White Nile 1901, No. 9:2, worker; type locality, Khartum, Sudan. New synonymy.

The cotype of *A. silvaticus* compares very well with the type of *A. traegaordhi* and with a worker determined as *A. traegaordhi* by Forel from Stanleyville, Congo (H. Kohl leg.), except that the disc of the pronotum is very superficially striate in *silvaticus*, although still more or less shining. The difference does not seem to me to represent more than local variation. The meso- and metapleura are smooth in the types of both species.